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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,635	07/12/2000	Ulrich Sigmund	RAV10009	2264

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EXAMINER

GUBIOTTI, MATTHEW P

ART UNIT	PAPER NUMBER
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2124

3

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/614,635

Applicant(s)

SIGMUND, ULRICH

PRG

Examiner

Matthew Gubiotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 recites the limitation "multimedia data" in Line 1. There is insufficient antecedent basis for this limitation in the claim. The claim has further been treated below as reading "multimedia input data".

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do

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not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 4, 9, 12, 15 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Ansari (U.S. Pat. No. 6,473,897).

Claim 1

Ansari teaches an apparatus (col.11, li.6-8; fig.5) executing a method for generating assembly code comprising:

A generator for receiving a data stream and for outputting a generic representation thereof ("non-customized version [of assembly code]"; col.5, li.46-55); and

A translator for receiving said generic representation and for outputting processor-specific code for processing multimedia data (col.5, li.66 to col.6, li.3).

Claim 4

Ansari teaches the data comprising SIMD instruction (col.5, li.23-32).

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Claim 9

Ansari teaches the use of library files to change the configuration of the translator (col.4, li.53-61; fig.1, ref.105).

Claims 12, 15 and 22

These claims represent the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claims 1, 4 and 9, respectively. They are rejected on the same grounds as stated above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari as applied to claim 1 above.

Claim 2

Ansari teaches a method of generating an abstract assembly code routine using a series of software routines (col.11, li.1-

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6). Ansari does not expressly teach that these routines are executed at run-time. It would have been obvious, to one of ordinary skill in the art at the time of the invention, to execute the software routines of Ansari to generate an abstract assembly code routine at runtime. This would have been obvious because one of ordinary skill in the art would have been motivated to execute the routines of Ansari only at runtime to reduce processing and memory overhead associated with preprocessing assembly code. This makes for the efficient use of processing resources, as taught by Ansari (col.1, li.54-57)

Claim 13

This claim represents the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claim 2. It is rejected on the same grounds as stated in the rejection detailed above.

5. Claims 3, 7, 8, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari as applied to claim 1 above, and further in view of Benson (U.S. Pat. No. 5,307,492).

Claims 3 and 7

Ansari teaches a translator for receiving said abstract representation and for outputting processor-specific code for processing multimedia data (col.5, li.66 to col.6, li.3).

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Ansari does not expressly teach that the abstract routine is in the form of a graph. Benson, in an analogous art, teaches the use of graphs as an intermediate step in the generation of processor-specific code (col.9, li.23-29; col.10, li.30-33). It would have been obvious, to one of ordinary skill in the art at the time of the invention, to generate the abstract routine using the graphs of Benson. This would have been obvious because one of ordinary skill in the art would have been motivated to use a visual format for creating the abstract routine to more easily identify code segments that cause performance issues, as taught by Benson (See Abstract, li.7-20). This makes for the efficient use of processing resources, as taught by Ansari (See col.1, li.54-57).

Claim 8

Ansari teaches the output of the translator as assembly code ("different versions of assembly code"; col.5, li.46-55; col.13, li.1-8; figs.11 & 12)

Claims 14, 16 and 17

These claims represent the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claims 3, 7 and 8, respectively. They are rejected on the same grounds as stated in the rejections detailed above.

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6. Claims 5, 6, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari as applied to claim 1 above, and further in view of Gelissen (U.S. Pat. No. 5,854,927).

Claims 5 and 6

Ansari does not expressly teach the input data comprises audio or video data. Gelissen, in an analogous art, teaches providing audio and video information as inputs to multiple platforms (col.1, li.57-62; See Abstract). It would have been obvious, to one of ordinary skill in the art at the time of the invention, to use the data stream taught in Gelissen as the input for the method of Ansari. This would have been obvious because one of ordinary skill in the art would have been motivated to use the method of Ansari on the multimedia data taught by Gelissen to improve the processing efficiency associated with providing conforming data to multiple platforms as suggested by Ansari (col.2, li.6-8) and by Gelissen (col.1, li.53-65).

Claims 18 and 19

These claims represent the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claims 5 and 6, respectively. They are rejected on the same grounds as stated in the rejections detailed above.

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7. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari as applied to claim 1 above, and further in view of Abdallah (U.S. Pat. No. 6,502,115).

Claim 10

Ansari does not expressly teach the operations performed on the data. Abdallah, in an analogous art, teaches operators for the input data as disclosed (col.6, li.25-38). It would have been obvious, to one of ordinary skill in the art at the time of the invention, to use the data operators taught in Abdallah in the method of Ansari. This would have been obvious because one of ordinary skill in the art would have been motivated to use the operators to improve the processing efficiency associated with providing conforming data to multiple platforms as suggested by Ansari (col.2, li.6-8) and taught by Abdallah (col.2, li.50-54).

Claim 20

This claim represents the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claim 10. It is rejected on the same grounds as stated in the rejection detailed above.

8. Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari and Benson as applied to claim 3 above, and further in view of Okuda (U.S. Pat. No. 6,493,467).

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Claim 11

Ansari and Benson do not expressly teach that the graph is a function of color. Okuda, in an analogous art, teaches the use of graphs that are a function of color in the art of processing multimedia to a plurality of processor elements (col.1, li.7-17; col.4, li.32-43). Okuda teaches this method as a technique to improve processing efficiency of multimedia signals (col.3, li.35-43). It would have been obvious, to one of ordinary skill in the art at the time of the invention, that the graphs of Benson as applied to the method to Ansari would have been a function of color. This would have been obvious because one of ordinary skill in the art would have been motivated to express multimedia data in a graph (expressed as tuples, See Benson col.9, li.67 to col.10, li.12) as a function of color to allow for efficient processing for multiple platforms by a generator, as taught by Benson (col.12, li.16-20). This makes for the efficient use of processing resources, as taught by Ansari (See col.1, li.54-57).

Claim 21

This claim represents the method executed by the apparatus (col.10, li.14-33; fig.5) taught in claim 11. It is rejected on the same grounds as stated in the rejection detailed above.

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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Gubiotti whose telephone number is (703) 305-8285. The examiner can normally be reached on M-F, 8-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MPG

March 18, 2003



JOHN CHAVIS
PATENT EXAMINER
ART UNIT 2124